

## Abstract

The present invention discloses a process for alkylation of an aromatic hydrocarbon or isoalkane with an olefin over the catalysis of a solid acid, comprising contacting a reaction material containing an aromatic hydrocarbon or C<sub>4</sub>-C<sub>6</sub> isoalkane, C<sub>2</sub>-C<sub>18</sub> monoolefin and a compound containing a strongly electronegative element as promoter with a solid acid catalyst to carry out the alkylation, characterized in that the solid acid catalyst is contacted with a compound having a strongly electronegative element prior to its contact with the reaction material. Said process not only greatly increases the selectivity of the target product of the alkylation but also improves stability of the solid acid catalyst.